FRANCHISING IN ELECTRICITY DISTRIBUTION BUSINESS MANAGEMENT: AN INTER-STATE ANALYSIS

(Evidence from Odisha and Assam)

A

THESIS

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Synopsis

Introduction

Electricity has continued to remain a crucial infrastructural inputs contributing to economic growth, development, and social welfare of nations (Thakur et al., 2017; Prayas, 2019). The sustainability of the electricity sector value chain is dependent upon the commercial viability of the distribution companies (DISCOMs) (Gill et al., 2019). The electricity utilities historically are state owned, financed, and operated. When a utility is commercially viable and efficient in its operation, quality power could be supplied at reasonable tariffs. Meanwhile, the financial losses due to welfare measures of state and rising costs, led to the inefficiency in operations. To address this, numerous countries (especially developed) initiated the restructuring and reform of power utilities for bringing efficiency and effectiveness in operations. The privatisation drive in developing countries had limited success (Foster and Rana, 2019). Private utilities predominantly show greater interest in urban localities driven by higher profitable opportunity. On the other hand, the monopolistic state government-owned model is unlikely to be profitable due to inefficiencies. However, majority of the utilities in developing nations continues to be state owned. Numerous developing economies adopted the route of public private partnerships (PPP) rather than transferring ownership rights to private players. The PPP model has been predominantly successful in urban areas. However, the revenue generation continues to remain challenging from rural areas. Due to inadequate power supply and inefficient practices of revenue collection, the DISCOM losses have continued rising. Collection remains more challenging in politically sensitive, geographically scattered and far flunged topographies.

Since the initiation of Indian power sector reforms in 1996, the DISCOMs of the majority of Indian States are still burdened with losses amounting to nearing INR 30,000 crores, leading to inadequate investments (Gill et al., 2019; Chatterjee, 2020). These losses are transferred on to consumers in the form of high tariffs, and also poor and inadequate power supply. Due to poor power supply and inefficient practices of revenue collection, the losses are continuing to increase. Approximately 10% to 20% of the losses are supposed to be met by subsidy payments from their respective state governments. However, despite strong policy mandates from the centre ensuring timely payments of subsidies, there have been substantial delays across states straining the liquidity requirement of DISCOMs, making losses in the Indian distribution sector highest in the world amounting to 21.9% of electricity distributed (Prayas, 2019; Bhaskar, 2020; Singh,2020). To break the vicious cycle, select Indian DISCOMs have been appointing franchisees to operate as agents for reaching out to domestic consumers situated in higher loss making areas.

Franchisee operates under the jurisdiction of the respective DISCOMs. Franchisees enter into contractual relationship with DISCOMs to bring in efficiency in operations, leading to increasing cash flows. The model is broadly structured into two categories. Firstly, the franchisees receive electricity from DISCOMs at designated input points and pay back an annual input rate. Secondly, the franchisees are assigned tasks of metering, billing and collection. The business model is designed to achieve a minimum reduction in Aggregate Technical and Commercial (AT&C) losses and bring operational efficiencies for meeting the contracted performance. Franchising as a business model has been attracting researchers across globe. However, there is dearth of adequate academic literature in electricity franchising (Prayas,2017). Meanwhile, the corporate consultancy reports present mixed shreds of evidences (Prayas, 2017; Thakur et al., 2017; Foster and Rana, 2019).

Despite increasing relevance, franchisee contracts have failed in several places. This calls for exploring the contractual arrangements of this business model. Moreover, the private sector in power sector has been reluctant for taking risks in the absence of a well-structured offer. Thus, what must have been motivating for certain private players taking up rural dominant areas? Thus, tracing the factors responsible for success or failure of the model has been emphasized upon. This thesis fills the gap drawing shreds' of evidence drawn from two different types of distribution franchisee experiences in two Indian states. The purpose of the study was to examine the DISCOM's decision of hiring franchisees, and determining the operational and contractual factors responsible for desired efficiency achievement. This study concentrated on taking insights from both the franchisor and franchisee. The key question that has driven this study is whether this model could be considered relevance in addressing the age-old inefficiencies faced by DISCOMs?

The first objective was examining the DISCOM's decision of hiring franchisees. The franchising literature has emphasized upon the resource scarcity theory (RST) to having been used for justifying arguments supporting the franchisee initiation.

Research Question 1- Did the resources scarcity motivated the DISCOMs to adopt the franchisee model?

RST states that due to franchising, the franchisor gains by revenue generation through franchisees, better employee engagement and access to local information (Oxenfeldt and Kelly, 1968). Therefore, the objective is to determine the organizational operational factors of franchisees responsible for success/failure of the franchise system.

Research Question 2- Which operational key factors of franchisees are responsible for varying performance of the franchise system?

The DISCOMs get contractually engaged with the agents (franchisees). Franchising literature emphasized upon the agency theory (AT) for justifying performance of the contractual relationship. Literature states that the design and terms of the contractual relationship and commitment of the contracting parties determines success/failure of the agency contract. The objective is to develop chain of evidences to devise ways for bringing improvements in the contract.

Research Question 3- How the design and commitment of the contracting parties to the contractual relationship impacts the performance/non-performance of the franchise system?

Thus, this study was initiated intending contribution towards the literature on utility franchising using the franchising theories, namely, RST and AT. The two theories were identified as relevant for the creation of the research framework and significant research questions creating the boundaries of this study. Therefore, research methodology was planned and executed intending to draw insights into the contractual and organizational factors beneath performance/non-performance of the franchise system.

Methodology

To explore the research questions the study followed the multiple embedded case study methodology (Yin,2003). As research has shown that studying both leads to a complete understanding of the processes and results created within the system, the levels of analysis were identified both at franchisor and franchisee organizations(Neijmajer, Huijman, and Fabriccoti, 2014). Under the franchisor and franchisee organizations there were multiple embedded units of analysis (Neijmajer, Huijman, and Fabriccoti, 2014). The methodology enabled to build an in-depth explanation of the franchise model initiation by the franchisor and how the franchisees have sculpted their operations for addressing the objective of the contractual relationship. Purposive sampling has been followed for identifying and for effective selection of information-rich cases for answering the research questions. This involved identification of specific individuals or groups of individuals that are especially experienced and have the requisite set of knowledge, was available and showed a willingness to participate and communicate their insights or opinions (Creswal, 2004; Palinkas et al., 2015).

The selection of Indian states was based on interviews of eleven subject matter experts across India. Every interviewee had experience of working with the franchise model for more than a decade. Professional networking websites were used for identifying the experts. The verification of their profiles was done based on their organizational designations. The objective was drawing

insights on franchisee model operations and identifying challenges relating to franchise operation. The experts argued that select financially capable input based franchisees could perform in predominantly urban localities. The challenge continues to stay predominantly in rural areas with high AT&C losses. Therefore, the states of Odisha and Assam were chosen because of higher AT&C losses. The states have franchised their electricity distribution segment predominantly in rural and semi-urban areas. These states share similarity in terms of their per capita income, and geographical demographics. The AT&C losses in these states are comparatively higher because of poor billing and collection predominantly from 80 to 85% rural population (AERC, 2018; Prayas, 2017). It becomes challenging for private players to operate in rural and far-flunged areas without adequate government commitment. Due to high losses, financial scarcity has posed as challenge. However, Informational and managerial scarcity is severe in rural and interior areas because of inadequate and unplanned expansion of the network (Gill et al., 2019). The experienced players have access to better technology and are financially capable (TERI, 2015). However, loss reduction is a daunting task for smaller players and implementing in rural areas within relatively shorter contract duration. Similarly, the agency problems of moral hazard could be higher due to difficulties in monitoring by the franchisor in rural dominant areas. Further, the rural populations being ignorant about government schemes, or other benefits, it is easier to be taken advantage. Therefore, the franchise model in Odisha and Assam were considered as a right fit for forming part of the sample for testing the agency problem of moral hazard and adverse selection because financially weak and agents with comparatively lesser experience has been selected to operate in challenging territory to bring down losses at par with national standards (i.e 15%) in relatively smaller contract period. The two states had experience of operating with the both the broad categories of the franchisee models. One DISCOM operates in Assam; whereas, four DISCOMs operates in Odisha. One of the DISCOMs in Odisha had franchised 70% of their areas.

Secondly, for drawing insights on the DISCOM's motivation for hiring franchisees, 51 semi-structured interviews were conducted. This was complemented by relevant corporate reports and circulars provided by the interviewees during the interviews. The interviewees belonged to the senior levels in the regulatory commission (both retired and current) and across organizational hierarchy of the DISCOM. The method generated all-inclusive perspective of the DISCOM's decision of hiring the franchisees. The interviews served as a guide about the performing/non-performing franchisees and setting of the contractual terms. In Odisha, all the three franchisees were taken due to their differences in performance in terms of achieving target performance. One of them was considered as performing, another as moderately performer, and other as failure. In Assam, five franchisees were purposively selected based on their age, experience and performance. Three

organizations were considered as performing (two of them were 13 years old; and one was four years old). Two organizations were considered as poor performers (one of them continued operating despite of dismal performance; meanwhile, the services of the other was terminated). The performing and non-performing franchisees were selected from both the states to draw varied insights.

Thirdly, thirty in-depth interviews were conducted at the franchisees. Initially interviews were conducted at the top managerial level. Subsequently, the departmental or functional heads were interviewed. The objective was understanding the franchisee's perspectives upon accepting the conditions of the contract. Fourthly, 49 officials from the sub-divisional and sectional levels were interviewed. The objective was to validate the claims which were made by the top level management. Their insights on the performance of the franchisees and the accompanying ground challenges were significant for understanding the operations of the franchisees.

Analysis, Discussion, Conclusion

The first research question has been based on the Oxenfeldt and Kelly's proposition that firms franchise due to three prominent reasons, namely Financial Scarcity, Managerial Scarcity and Informational Scarcity. The RST has been tested in Odisha's CESU and Assam's APDCL. This study has determined eleven resource scarcity factors (payment of subsidy, high debt, AT&C loss, assignment of human resources in the sector, planning relating to expansion, managerial inefficiencies, metering, interactions between different managerial levels, consumer awareness, and consumer grievances) in the power distribution sector. Since these factors were collected from across DISCOM hierarchy and the regulatory commission, holistic insights were drawn on each of the factors. Contradicting the theoretical underpinning, the findings revealed that the DISCOM adopts the franchise route for addressing the administrative pressure by the Power Ministry of India upon the DISCOMs for reducing financial losses. This implies both CESU and APDCL have been primarily motivated by the challenge of financial scarcity to hire franchisees. The rising average cost of electricity supply has been accompanied by the recovery of dues at meagre figures respectively. The power purchase costs of both the DISCOMs have remained high resulting from predominant dependence upon the central sources of thermal power generation. However, the increasing costs have not been serviced by proportionate improvements in the billing and collection efficiency. This leads to difficulties in payment of dues by the DISCOM to the generators. However, electricity business being an essential commodity is always backed by government cushion in terms of payment of dues, thereby affecting the budgetary conditions of government. Odisha has been debarred from state government subsidies or other central government restructuring plans after

technically being privatized in 1999. However, the dismal condition of the utility is being funded by grants on the condition of conversion into loan if efficiencies are not achieved. CESU has been grossly dependent on consumer deposits and loan capital from the public sector banks. Meanwhile, Assam has been enjoying a privilege of central government funding support upto 90% belongining to the north eastern part of India. However, the officials of APDCL remarked to have been receiving subsidies quite lately causing difficulties in operation. Further, Odisha and Assam being disaster prone area, the infrastructural funds received for metering or system upgradation either from central or state government has never been adequate due to annually caused damages by natural disasters. Thus, even though the government is investing, but revenue generation is not sufficient to meet the return on the investment of government. Thus, this scarcity could be considered as an economic motivation. The officials of both CESU and APDCL has remarked that the financial scarcity has been acting as a roadblock for increasing infrastructure in form of sub-divisions, or for increasing human resources. However, the funds are inadequate to increase human resources to deliver services to the rising population leading to the challenge of information scarcity. Further, due to lack of accountability, control and monitoring of the field officials, judicious management of resources are not being carried out. Therefore, the challenge of information scarcity has been prevailing. This leads to unplanned expansion of network and mis-utilization of funds received under numerous central and state government schemes. Further due to centralized system being followed, decisions flow from top to bottom. However, the field level challenges remain at the ground level since it has to pass through multiple channels. Thus, this leads to the challenge of information asymmetry. Moreover, due to centralized controlling, the field employees are not being formed part of strategic planning. Therefore, coordination gap in addition to lack of support services and allowances to these employees encourages more corrupt practices. Further, consumer grievances handling process and creation of consumer awareness has been challenging in both Odisha and Assam. Therefore, considering these inefficiencies, the Electricity Act'2003 and its further amendments have been encouraging encouragement of multiple stakeholders for improving management of local operations through outsourcing or franchising or internal privatization of operations.

Answering the 2nd research question, the franchisee organizational best practices were determined based on the interviews with the franchisee top management officials, departmental heads, sub-divisional and sectional managers. Nine organizational best practices (insightful survey, division of labour or decentralization, funding, digitalization, review and feedback monitoring, community engagement, aggressive vigilance drives, and engagement with political actors) were determined. Holistic insights were drawn on each factors as data was collected from officials all across the franchisee hierarchy. In cases of the franchisees under APDCL, the objective of revenue

collection was defined by the contract; hence the operations of the select organizations were driven by the set aim. However, their survival was found to be dependent upon their financial ability. Meanwhile, in the three franchisees under CESU, the objective of the contract has been reduction of losses leading to network upgradation and increasing the realization per unit. However, it was observed that the two performing franchisees strategized on increasing revenue collection for survival of the contract; and the failure organization survived by virtue of increasing performance security on account of failed performance. Further, it has been observed that surveys (by creating divisions and assigning responsibilities) immediately post starting of operations is essential for bringing changes in reducing the illegal connections and improving the collection efficiency. This needs to be accompanied with financial capability of the franchisees. It has been observed that franchisees sustainability get impacted through their access to funds. These factors also showed effect on the community engagement drives of the franchisee organizations. However, this also necessitates handholding by the respective franchisors. This gets helped by sales mix of franchisees. It's been observed that franchisees could perform when provided with a higher proportion of urban areas along with rural areas, providing them a feasible opportunity for getting return on their investments. Additionally, managerial practices with regard to review, monitoring, and frequency of feedback showed varying impact on achievement of the requisite efficiency measures.

Similarly, the 3rd research question was answered, holding the assumption that every contractual agreement is accompanied by the challenge of information asymmetry; the performance gets impacted due to the agency problem of adverse selection and moral hazard. Therefore, the instances of both the agency problems were studied at the inter-organizational and intra-organizational levels. In the inter-institutional level, three factors were determined leading to the challenge of adverse selection. The factors were bounded choices with the DISCOM, historical background of the DISCOM, and political parties in power. It has been observed that the contracts are designed based on primarily the historical background of DISCOM accompanied by the interest of the political parties in power. Therefore, these bind the choices of DISCOMs. The contract gets primarily drafted suiting interest of the franchisors and the franchisees accepts the terms and conditions with the intent of revenue earning scope and availing benefits of relevant government schemes. In the intra-institutional level, the choices were determined by motivation, experience, financial resources, and political connections. Most of the franchisees were under the obligation and for smoothening their operations had to hire their employees from the local areas at the field level. This was fuelled by demands of the local politicians. Some franchisees were observed to have hired less skilled employees as a cost cutting measure and saving their finances. This has proved DISCOM's inability to verify the authenticity of the documents provided while hiring the agents.

Similarly, six factors responsible for causing moral hazard were determined. They were contract design, fear of getting blacklisted, monitoring and reviews, risk sharing, alignment of benefits to both, and regulatory scrutiny. A detailed drafted contract reduces the chances of moral hazard because it legally binds the contracting parties to abide by the terms and conditions. The contracts have been drafted stating the terms, conditions, rights, obligations, compensation and benefits of the contracting parties. It has been observed that target performance has been set for every franchised area equally as per the national targets of attaining commercial viability, not considering the area dynamics. However, the agreement was absent about the ways of loss reduction to be undertaken by the franchisees for legally binding the franchisees to their agreements. Further, the agreement did not detail out the probable corrective actions to be undertaken if the performance does not match the targets. The contract stated the increase in the security performance deposit on account of failure of the franchisees to meet the targets. Meanwhile, literature states considering that the agents perform task on behalf of their principal, the principal should control the underperformance by threat of takeover or penalty. However, it has been observed that, due to availability of cushion of government managing the DISCOM dues, there is a lack of threat of their services getting blacklisted. Similarly, majority of the employees at five franchisee organizations expressed their dissatisfaction upon the breach of contractual terms was done within the organizational hierarchy with regard their designations, transferability, remunerations and with the funders in terms of repaying the loan amount. Further, the DISCOM contracted to assist the franchisees to assist in facing the resentments in the field from the employees and consumers. However, the franchisees remarked breached the contracted clause by rather encouraging resentment from consumers and at some places the officials were ransacked and beaten. It has been observed in Assam that with changes in governing body, there are changes in coordination and attitude towards franchisee operation and behaviour and support services towards the franchisees. Therefore, lack of government will and commitment has an impact on efficiency achievement. The ability to have structured and timely communication contributes in holding discussions about the progress and seek ideas and correcting the deviations. However, it has been observed that monitoring has not been effective in both the states due to absence of timely review meetings and presentations for discussing the performance or non-performance. Similarly, it has been observed in cases of the franchisee organizations performed better when management control and coordination has been better through regular and timely review and feedback meetings, remunerations have been given on time, employees authenticity and honesty in dealings have been emphasized upon. It has been observed that the risks sharing both at the inter-institutional level and multi layers of the organization is not as per agreed to in the contractual agreement. However, contradicting the

contractual terms, almost every section employee of all the franchisee remarked that DISCOM did not assist in creation of public awareness with provision of a strong vigilance team or police support.

Thus, it could be concluded that the factors discussed above could help in improving the franchise performance, resulting from operational efficiency and revenue generation of the franchisees, leading to effective consumer services. In franchising literature, much consideration has not been given to the agent's perspective. The organizational and contractual performance factors determined when structured together, will contribute to the existing knowledge and on-going debate on sustainability of the business model. The available literature on private participation in electricity distribution management lacks detailed list of grounded reasons beneath the performance or non-performance of the franchise model.

The findings of the thesis are limited to locations with similarities in sales mix, and locations. Further, the accuracy of the adopted methodology has higher dependency on the expert's frame of mind, attitude and opinions. Though efforts were taken of reducing human biasness, but cannot be removed completely. Further, the performance data figures disclosed by the franchisees doesn't pass through the regulatory scrutiny as franchisees are yet to get independence as per the Electricity Act's 2003. Therefore, for ensuring the accuracy of the performance figures, the data was collected through multiple sources. This thesis examined the claims of the franchisees across the organizational hierarchy. However, future studies could consider verifying the claims from the consumers' stand point through adopting the consumer survey method. Further, the organizational and contractual factors vary with states, sales mix, DISCOM, franchisees and governance. Thus, the organizational and contractual relationship factors determined in the thesis study could be validated through empirical testing in different franchised areas.

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Chapter 1

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